

## Question on integral extensions,,

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- *From:* "James" <James545@xxxxxxxx>
  - *Date:* Fri, 7 Oct 2005 10:19:18 -0400
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It is true that if  $S$  is a finitely generated  $R$ -module, then  $S$  is an integral extension of  $R$ . But it was claimed in my class today that the other direction is true as well.

But isn't  $\bar{Q}$  integral over  $Q$ , but  $\bar{Q}$  is an infinite dimensional vector space over  $Q$ , so it is not finitely generated as a  $Q$ -module?

James

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- *Follow-Ups:*
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